

**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**  
**11 Laurier St. / 11, rue Laurier**  
**Place du Portage, Phase III**  
**Core 0B2 / Noyau 0B2**  
**Gatineau, Québec K1A 0S5**  
**Bid Fax: (819) 997-9776**

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> BLOCK FREQUENCY UP/DOWN CONVERTERS		
<b>Solicitation No. - N° de l'invitation</b> U6800-153561/A		<b>Date</b> 2015-07-14
<b>Client Reference No. - N° de référence du client</b> U6800-153561		
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HN-333-67661		
<b>File No. - N° de dossier</b> hn333.U6800-153561	<b>CCC No./N° CCC - FMS No./N° VME</b>	
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2015-08-24</b>		<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>		
<b>Address Enquiries to: - Adresser toutes questions à:</b> Chow, Mejuine		<b>Buyer Id - Id de l'acheteur</b> hn333
<b>Telephone No. - N° de téléphone</b> (819) 956-6283 ( )		<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF INDUSTRY CANADA 3701 CARLING AVE P.O.BOX 11490 STATION H OTTAWA Ontario K2H8S2 Canada		

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Electrical & Electronics Products Division  
11 Laurier St./11, rue Laurier  
7B3, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

U6800-153561/A

Amd. No. - N° de la modif.

File No. - N° du dossier

hn333U6800-153561

Buyer ID - Id de l'acheteur

hn333

Client Ref. No. - N° de réf. du client

U6800-153561

CCC No./N° CCC - FMS No/ N° VME

---

**\*\*\* This page has been left intentionally blank \*\*\***

## TABLE OF CONTENTS

<b>PART 1 - GENERAL INFORMATION .....</b>	<b>5</b>
1.1 SECURITY REQUIREMENTS .....	5
1.2 REQUIREMENT .....	5
1.3 DEBRIEFINGS .....	5
1.4 TRADE AGREEMENTS .....	5
<b>PART 2 - BIDDER INSTRUCTIONS .....</b>	<b>6</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS .....	6
2.2 SUBMISSION OF BIDS .....	6
2.3 ENQUIRIES - BID SOLICITATION .....	6
2.4 APPLICABLE LAWS .....	6
<b>PART 3 - BID PREPARATION INSTRUCTIONS .....</b>	<b>7</b>
3.1 BID PREPARATION INSTRUCTIONS .....	7
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION .....</b>	<b>9</b>
4.1 EVALUATION PROCEDURES .....	9
4.2 BASIS OF SELECTION .....	9
<b>PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION .....</b>	<b>10</b>
5.1 CERTIFICATIONS REQUIRED WITH THE BID .....	10
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION .....	10
<b>PART 6 - RESULTING CONTRACT CLAUSES .....</b>	<b>12</b>
6.1 SECURITY REQUIREMENTS .....	12
6.2 REQUIREMENT .....	12
6.3 STANDARD CLAUSES AND CONDITIONS .....	12
6.4 TERM OF CONTRACT .....	12
6.5 AUTHORITIES .....	12
6.6 PAYMENT .....	13
6.7 INVOICING INSTRUCTIONS .....	14
6.8 CERTIFICATIONS .....	14
6.9 APPLICABLE LAWS .....	14
6.10 PRIORITY OF DOCUMENTS .....	14
6.11 SACC <i>MANUAL</i> CLAUSES (DELIVERY) .....	15
<b>ANNEX A - REQUIREMENT .....</b>	<b>16</b>

Solicitation No. - N° de l'invitation  
U6800-153561/A  
Client Ref. No. - N° de réf. du client  
U6800-153561

Amd. No. - N° de la modif.  
File No. - N° du dossier  
hn333U6800-153561

Buyer ID - Id de l'acheteur  
HN333  
CCC No./N° CCC - FMS No./N° VME

---

## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

There is no security requirement associated with the requirement.

### **1.2 Requirement**

The contractor must provide the goods in accordance with the technical requirements and in the quantities stated at Annex A.

#### **1.2.1 Delivery Requirement**

Delivery is requested to be completed by November 30, 2015.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

### **1.4 Trade Agreements**

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The *2003* (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of *2003*, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 90 days

#### 2.1.1 SACC Manual Clauses

SACC Reference	Section	Date
<i>A9033T</i>	Financial Capability	2012-07-16
<i>B1000T</i>	Condition of Material	2014-06-26

### 2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

### 2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

### 2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

---

## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

##### 3.1.1 Equivalent Product

1. Products that are equivalent in form, fit, function and quality to the item(s) specified in the bid solicitation will be considered where the Bidder designates the brand name and model and/or part number and NCAGE of the substitute product;
2. Products offered as equivalent in form, fit, function and quality will not be considered if:
  - (a) the bid fails to provide all the information requested to allow the Contracting Authority to fully evaluate the equivalency of each substitute product; or
  - (b) the substitute product fails to meet or exceed the mandatory performance criteria specified in the bid solicitation for that item.
3. In conducting its evaluation of the bids, Canada may, but will have no obligation to, request bidders offering a substitute product to provide technical information demonstrating the equivalency (e.g. Drawing, specifications, engineering reports and/or test reports), or to demonstrate that the substitute product is equivalent to the item specified in the bid solicitation, at the sole cost of bidders, within three (3) business days of the request. If the bidder fails to provide the requested information within the specified timeframe, Canada may declare the bid non-responsive.

#### Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

##### 3.1.2 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

Solicitation No. - N° de l'invitation  
U6800-153561/A  
Client Ref. No. - N° de réf. du client  
U6800-153561

Amd. No. - N° de la modif.  
File No. - N° du dossier  
hn333U6800-153561

Buyer ID - Id de l'acheteur  
HN333  
CCC No./N° CCC - FMS No./N° VME

---

### Section III: Certifications & Additional Information

Bidders must submit the certifications required under Part 5.

#### 3.1.3 Delivery Offered

While delivery is requested as indicated above, the best delivery that could be offered is \_\_\_\_\_.

#### 3.1.4 Contractor Representatives

Name and telephone number of the person responsible for:

##### General enquiries

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_

##### Delivery follow-up

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **Evaluation Criteria**

All bids must be completed in full and provide all of the information requested in the bid solicitation to enable full and complete evaluation.

#### **4.1.1 Technical Evaluation**

##### **Mandatory Technical Criteria**

The following Mandatory requirements must be submitted with the bid for evaluation

- Technical compliance (description of items at Annex A);
- Manufacturer of the items must have at least 10 years experience in building high-frequency transmitters and receivers;
- ISO 9001 Certification.

#### **4.1.2 Financial Evaluation**

##### **Pricing Basis**

The bidder must quote firm unit prices in Canadian dollars, DDP Delivered Duty Paid (destination), Applicable Taxes extra. Freight charges to destination and all applicable Custom duties and Excise taxes must be included.

### **4.2 Basis of Selection**

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price on an aggregate basis will be recommended for award of a contract.



---

## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Declaration of Convicted Offences**

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed [Declaration Form](#), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

#### **5.2.1 Integrity Provisions – List of Names**

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

## 5.2.2 General Environmental Criteria Certification

By submitting the bid, the bidder certifies that the information submitted in the General Environmental Criteria table found at Table 1 is accurate and complete.

By submitting the bid the Bidder certifies that it meets, and will continue to meet throughout the duration of any resulting contract, a minimum of four out of seven requirements identified in the General Environmental Criteria Table found at Table 1;

### Additional Information

The Bidder must complete Table 1 by inserting a checkmark next to every criteria that are met. Bidders are requested to submit Table 1 with their bid. As this is a new procedure, Canada reserves the right to request Table 1 after bid closing. The Contracting Authority will inform the Bidder of a time frame within which to provide it. Failure to provide Table 1 within the required time frame will render the bid non-responsive.

**The Contractor must meet and continue to meet four out of seven criterions during the entire duration of the contract.**

Table 1

Green practices within supplier's organization:	Insert a checkmark for each criteria that is met
Promotes a paperless environment through directives, procedures and/or programs.	
All documents are printed double sided and in black and white for day to day business activity unless otherwise specified by your client.	
Paper used for day to day business activity has a minimum of 30% recycled content and has a sustainable forestry management certification.	
Utilizes environmentally preferable inks and purchase remanufactured ink cartridges or ink cartridges that can be returned to the manufacturer for reuse and recycling for day to day business activity.	
Recycling bins for paper, newsprint, plastic and aluminum containers available and emptied regularly in accordance with local recycling program.	
A minimum of 50% of office equipment has an energy efficient certification.	
Registered to ISO 14001 or has an equivalent environmental management system in place	

## 5.2.3 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Security Requirements

There is no security requirement applicable to this Contract.

### 6.2 Requirement

The contractor must provide the goods in accordance with the technical requirements and in the quantities stated at Annex A.

#### 6.2.1 SACC Manual Clauses

SACC Reference	Section	Date
<a href="#">B1501C</a>	Electrical Equipment	2006-06-16
<a href="#">B7500C</a>	Excess Goods	2006-06-16

### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

#### 6.3.1 General Conditions

[2010A](#) (2015-07-03), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

### 6.4 Term of Contract

#### Delivery Date

All the deliverables must be received on or before \_\_\_\_\_ (Delivery as offered and as accepted will be inserted at contract award).

### 6.5 Authorities

#### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Mejuine Chow  
Public Works and Government Services Canada - Acquisitions Branch  
Logistics, Electrical, Fuel and Transportation Directorate - HN Division  
11 Laurier Street,  
7B3, Place du Portage, Phase III,  
Gatineau (QC) K1A 0S5

Telephone: (819) 420-0333 Facsimile: (819) 953-4944  
E-mail address: [mejuine.chow@pwgsc-tpwgsc.gc.ca](mailto:mejuine.chow@pwgsc-tpwgsc.gc.ca)

Solicitation No. - N° de l'invitation  
U6800-153561/A  
Client Ref. No. - N° de réf. du client  
U6800-153561

Amd. No. - N° de la modif.  
File No. - N° du dossier  
hn333U6800-153561

Buyer ID - Id de l'acheteur  
HN333  
CCC No./N° CCC - FMS No./N° VME

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Technical Authority

The Technical Authority for the Contract is: (will be inserted at contract)

Name:  
Title:  
Telephone: (xxx) xxx-xxxx Facsimile: (xxx) xxx-xxxx  
E-mail:

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 6.5.3 Contractor's Representative

Name and telephone number of the person responsible for: (will be inserted at contract)

#### General enquiries

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_

#### Delivery follow-up

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_

## 6.6 Payment

### 6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in the contract. Transportation charges to destination and all applicable Customs duties and excise tax are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 6.6.2 SACC Manual Clauses

SACC Reference	Section	Date
<u>H1000C</u>	Single Payment	2008-05-12
<u>H1001C</u>	Multiple Payment	2008-05-12
<u>G1005C</u>	Insurance	2008-05-12

## 6.7 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
  - (a) One (1) copy must be forwarded to the consignee.
  - (b) The original and one (1) copy must be forwarded to the following address for certification and payment.

Industry Canada – Communication Research Centre  
3701 Ave Carling, PO Box 11490 Station H,  
Ottawa (ON) K2H 8S2  
Attention: \_\_\_\_\_.
  - (c) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

Attention: Mejuine Chow (mejuine.chow@pwgsc.gc.ca)

## 6.8 Certifications

### 6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

### 6.8.2 General Environmental Certification

Green Practices (Part 5.2.2)

## 6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_.

## 6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the General Conditions 2014A (2015-07-03) General Conditions – Goods (Medium Complexity);
- (c) the Contractor's bid dated \_\_\_\_\_ (*date of bid*), as clarified/amended on \_\_\_\_\_ (*date(s)*).

Solicitation No. - N° de l'invitation  
U6800-153561/A  
Client Ref. No. - N° de réf. du client  
U6800-153561

Amd. No. - N° de la modif.  
File No. - N° du dossier  
hn333U6800-153561

Buyer ID - Id de l'acheteur  
HN333  
CCC No./N° CCC - FMS No./N° VME

## 6.11 SACC Manual Clauses (Delivery)

SACC Reference	Section	Date
<u>D2000C</u>	Marking	2007-11-30
<u>D2001C</u>	Labelling	2007-11-30
<u>D2025C</u>	Wood Packaging Materials	2013-11-06
<u>D9002C</u>	Incomplete Assemblies	2007-11-30

### 6.11.1 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and Delivered Duty Paid (DDP) Industry Canada (Ottawa, ON), Incoterms 2000 for shipments from a commercial contractor.

### 6.11.2 Shipping – Scheduling

The Contractor must deliver the goods to Industry Canada – Communication Research Centre by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the Technical Authority or the person below mentioned. The consignee may refuse shipments when prior arrangements have not been made.

Name : \_\_\_\_\_  
Telephone: \_\_\_\_\_

---

## ANNEX A

### REQUIREMENT

This requirement is for 2 up and down converter pairs listed below.

The vendor must:

- demonstrate that the manufacturer of high-frequency transmitters (up-converters) and receivers (down-converters) in the frequency range of 18GHz to 65GHz, has at least 10 years of experience;
- have ISO 9001 certification;
- provide block diagrams to demonstrate the up- and down-converters' functional operation and the contribution of each component to the overall performance;
- include calibration data demonstrating that technical specifications are met.

#### Technical Specifications:

##### Up-Converter #1

Frequency range:	18GHz to 40GHz (band 1: 18GHz-26.5GHz and band 2: 26.5GHz-40GHz)
IF to RF gain:	greater than 18dB
Output P1dB:	greater than +24dBm
Band switching control signal:	TTL (5V) controlled
Image rejection:	greater than 30dB
Band to Band Isolation:	greater than 60dB
RF output:	18GHz to 40GHz
RF output connector:	2.92mm female
Oscillator(LO)	
Phase locked oscillator	
Reference Signal:	10MHz
Connector for Ref input:	SMA female (not combined with IF input)
IF input:	less than 18GHz
IF input connector:	SMA female
Power to unit	
Voltage:	15VDC
Current:	less than 3.5A
Weight:	less than 8 LBS (3.65kg)

Unit must be built, tested and calibrated over the full bandwidth from 18GHz to 40GHz.

---

---

### Down-Converter #1

Frequency range:	18GHz to 40GHz (band 1: 18GHz-26.5GHz and band 2: 26.5GHz-40GHz)
Noise Figure:	less than 5dB
RF to IF gain:	greater than 12dB
Image Rejection:	greater than 30dB without filter #1 and #2 (specified below)
Band switching control signal:	TTL (5V) controlled
RF input:	18GHz to 40GHz
RF input connector:	2.92mm female
Oscillator(LO) Phase locked oscillator Reference Signal:	10MHz
Connector for Ref input:	SMA female (not combined with RF input)
IF output:	less than 18GHz
IF output connector:	SMA female
Power to unit Voltage:	15VDC
Current:	less than 3.5A
Weight:	less than 8 LBS (3.65kg)

The vendor will supply, install, test and calibrate the system with the filters #1 and #2 specified below. These filters must be able to be integrated or removed by the end user. Unit must also be calibrated over the full bandwidth from 18GHz to 40GHz without filters #1 and #2.

Filter #1: to be integrated into the 18GHz to 26.5GHz band

Center Frequency:	25.875GHz
Insertion Loss:	2dB max
Bandwidth:	1.25GHz
Ripple:	+/- 1dB max
Rejection:	40dB or higher at all frequencies less than 24.5GHz and all frequencies greater than 27.25GHz

Filter #2: to be integrated into the 26.5GHz to 40GHz band

Center Frequency:	38GHz
Insertion Loss:	2dB max
Bandwidth:	1GHz
Ripple:	+/- 1dB max
Rejection:	40dB or higher at all frequencies less than 36.875GHz and all frequencies greater than 39.125GHz

---



---

### Up-Converter #2

Frequency range:	55GHz to 62GHz
IF to RF gain:	greater than 18dB
Output P1dB:	greater than +18dBm
Image Rejection:	greater than 30dB
RF output:	55GHz to 62GHz
RF output connection:	WR-15 waveguide
Oscillator(LO)	
Phase locked oscillator	
Reference Signal:	10MHz
Connector for Ref input:	SMA female (not combined with IF input)
IF input:	less than 18GHz
IF input connector:	SMA female
Power to unit	
Voltage:	15VDC
Current:	less than 2A
Weight:	less than 5 LBS (2.3kg)

Unit must be built, tested and calibrated over the full bandwidth from 55GHz to 62GHz.

---

### Down-Converter #2

Frequency range:	55GHz to 62GHz
Noise Figure:	lower than 5dB
RF to IF gain:	greater than 10dB
Image Rejection:	greater than 30dB without filter #3
RF input:	55GHz to 62GHz
RF input connector:	WR-15 waveguide
Oscillator(LO)	
Phase locked oscillator	
Reference Signal:	10MHz
Connector for Ref input:	SMA female (not combined with RF input)
IF output:	less than 18GHz
IF output connector:	SMA female
Power to unit	
Voltage:	15VDC
Current:	Less than 2A

Solicitation No. - N° de l'invitation  
U6800-153561/A  
Client Ref. No. - N° de réf. du client  
U6800-153561

Amd. No. - N° de la modif.  
File No. - N° du dossier  
hn333U6800-153561

Buyer ID - Id de l'acheteur  
HN333  
CCC No./N° CCC - FMS No./N° VME

Weight: less than 5 LBS (2.3kg)

The vendor will supply, install, test and calibrate the system with the filter #3 specified below. This filter must be able to be integrated or removed by the end user. Unit must also be calibrated over the full bandwidth from 55GHz to 62GHz without filter #3.

Filter #3: to be integrated into the 55GHz to 62GHz downconverter  
Center Frequency: 61.25GHz  
Insertion Loss: 2dB max  
Bandwidth: 500MHz  
Ripple: +/- 1dB max  
Rejection: 40dB or higher at all frequencies below 57GHz  
and all frequencies above 65.5GHz

#### Table of Abbreviations

A: Ampere  
dB: Decibel  
GHz: Gigahertz  
IF: Intermediate Frequency  
kg: Kilogram  
LBS: Pounds  
LO: Local Oscillator  
MHz: Megahertz  
P1dB: the output power when at the 1 dB compression point  
Ref: Reference  
RF: Radio Frequency  
SMA: SubMiniature version A  
TTL: Transistor-Transistor Logic  
VDC: Voltage, Direct Current